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Art Unit: 3729

Amendments to the Specification

An amendment of the written description is presented under the heading

"Amendment to the Specification."

Amendments to the Claims

The claims are amended as shown on the following pages under the heading LIST

OF CURRENT CLAIMS. The list shows the status of all claims presently in the

application including any current amendments. This list of claims is intended to supersede

all prior versions of the claims in the application. Any cancellation of claims is made

without prejudice or disclaimer.

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AMENDMENTS TO THE SPECIFICATION

The title has been amended to read:

Temperature Sensor Temperature Sensing Tube and Its Fabrication Method

A Method Of Fabricating A Temperature Sensing Tube

Page 5, paragraph 5 has been amended to read:

A <u>A tube member 5 that includes a</u> head section 4 having an outer conoidal hem 41

and an inner conoidal hem 42 formed along the circumference at its lower extent, wherein

the inner conoidal hem 42 is fashioned by acutely bending the upper circumferential edge

of the outer conoidal hem 41 into a U-shape such that it overlaps against the outer

conoidal hem 41; wherein, a neck section 44 is formed at the bottom section 43 and center

of the conoidal hem 42 that includes a gradually reduced neck base 441 which is larger

than and formed upward from the bottom section 43 and continues extending above into a neck body 442 having an approximately equal tubular diameter, a passage 45 is disposed

in the neck section 44, the said passage 45 including a hole section 451 of a nominally

constant inner diameter that matches the neck body 442 and a conic hole section 452 of

graduated reduction from the bottom towards the top that matches the neck base 441.

Page 6, the first full paragraph has been amended to read:

A The tube member 5 having has a hollow interior section that is contiguous with

the said passage 45 and a hole mount 51 formed inward at the bottom section, with an

aperture 511 disposed in the hole mount 51.

Page 6, paragraphs 4 and 5 has been amended to read:

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The said carrier mount 6 has external threads 61 and a seat 62 as well as a

receiving recess 64 inside tapped with internal threads 63; an opening 65 is formed in the

receiving recess 64 and a conoidal guide edge 66 is disposed between the receiving recess

64 and the opening 65.

The said threaded pin component 7 has a turning section 71 and external threads

72, with a bore 73 formed inside; the end portion of the threaded pin component 7 is

shaped such that it has a flat bottom section 74 and a beveled edge 75.

Page 8, paragraphs 2 and 3 have been amended to read:

A first step, referring to FIG. 5, that provides for a tubular blank blank tubular

member 8 of an appropriate length.

A second step, referring to FIG. 6, in which the tubular blank member 8 formed in

the previous step is moved between a female die 81 having a die cavity 811 and a curved

bottom edge 812 and a punching rod 815 having a thin lengthy rod section 813 and a

curved front end section 814 for impact forging to thereby form a curvilinear first

semifinished product 816 of the tube member 5 having a curvilinear bottom end 817

<u>defining a</u> bottom section aperture 511 shown in FIG. 3.

Page 9, paragraphs 1, 2 and 3 have been amended to read:

A third step, referring to FIG. 7, in which the tubular member 8, formed into the

first semifinished product 816 of the previous step, is moved between a female die 82

having a die cavity 821 and a curved bottom edge 822 and a punching die 825 having a

channel 823 and a suitably long flared hole section 824 at its front end for impact forging

to thereby form the second semifinished product 826 of the neck base 441 and the neck

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body 442 shown in FIG. 3; wherein, the depth of the female die 82 die cavity 821 is less

shallow than that of the first step female die 81 die cavity 811.

A fourth step, referring to FIG. 8, in which the tubular member 8, formed into the

second semifinished product 826 of the previous step, is moved between a female die 83

having a die cavity 831 and a curved bottom edge 832 and a punching die 835 having a

channel 833 and a suitably long flared hole section 834 at its front end for impact forging

to thereby form the third semifinished product 836 of the neck base 441 and the neck body

442 shown in FIG. 3; wherein, the punching die 835 flared hole 834 is closer to the

finished product dimensions than that of the previous step.

A fifth step, referring to FIG. 9, in which the tubular member 8, formed into the

third semifinished product 836 of the previous step, is moved between a female die 84

having a die cavity 841 and a circular groove-shaped bottom edge 842 and a punching die

845 having a channel 843 and a suitably long flared hole section 844 at its front end for

impact forging to thereby form the fourth semifinished product 846 of the tube member 5

having a hole mount 51 surrounding the bottom section aperture 511 as shown in FIG. 3.

Page 10, paragraphs 1 and 2 have been amended to read:

A sixth step, referring to FIG. 10, in which the tubular member 8, formed into the

fourth semifinished product 846 of the previous step, is moved between a female die 85

having a die cavity 851, a circular groove-shaped bottom edge 852, and a flared opening

853 and a punching die 857 having a channel 854, a suitably long flared hole section 855

at its front end, and a conical edge 856 for impact forging to form the finished product 858

having the outer conoidal hem 41 and the inner conoidal hem 42 shown in FIG. 3.

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In the preferred embodiment of the invention herein, the fourth and the fifth steps can be combined, wherein the fourth step female die 83 and the fifth step female die 84 are alternated such that during the fourth step, in addition to forging the neck base 441 and the neck body 442 into predetermined product dimensions, the tube member 5 bottom section aperture 51 511 is formed and completed at the same time.